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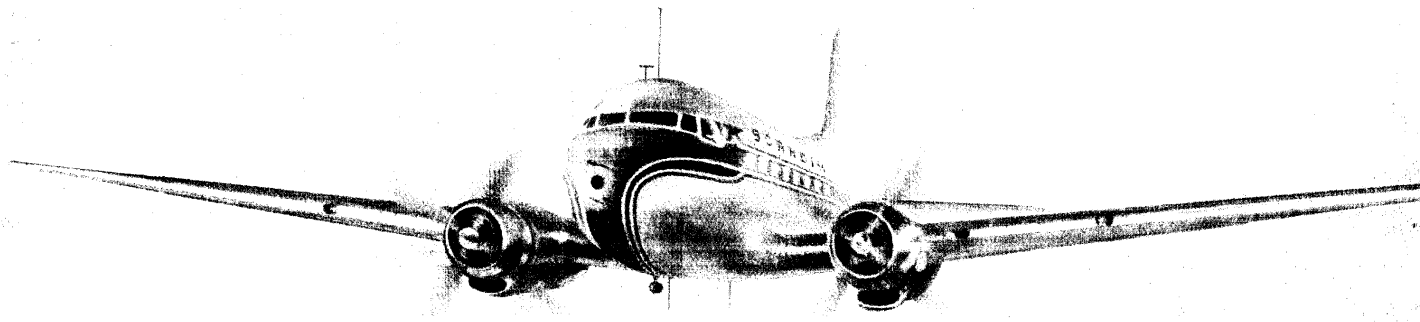
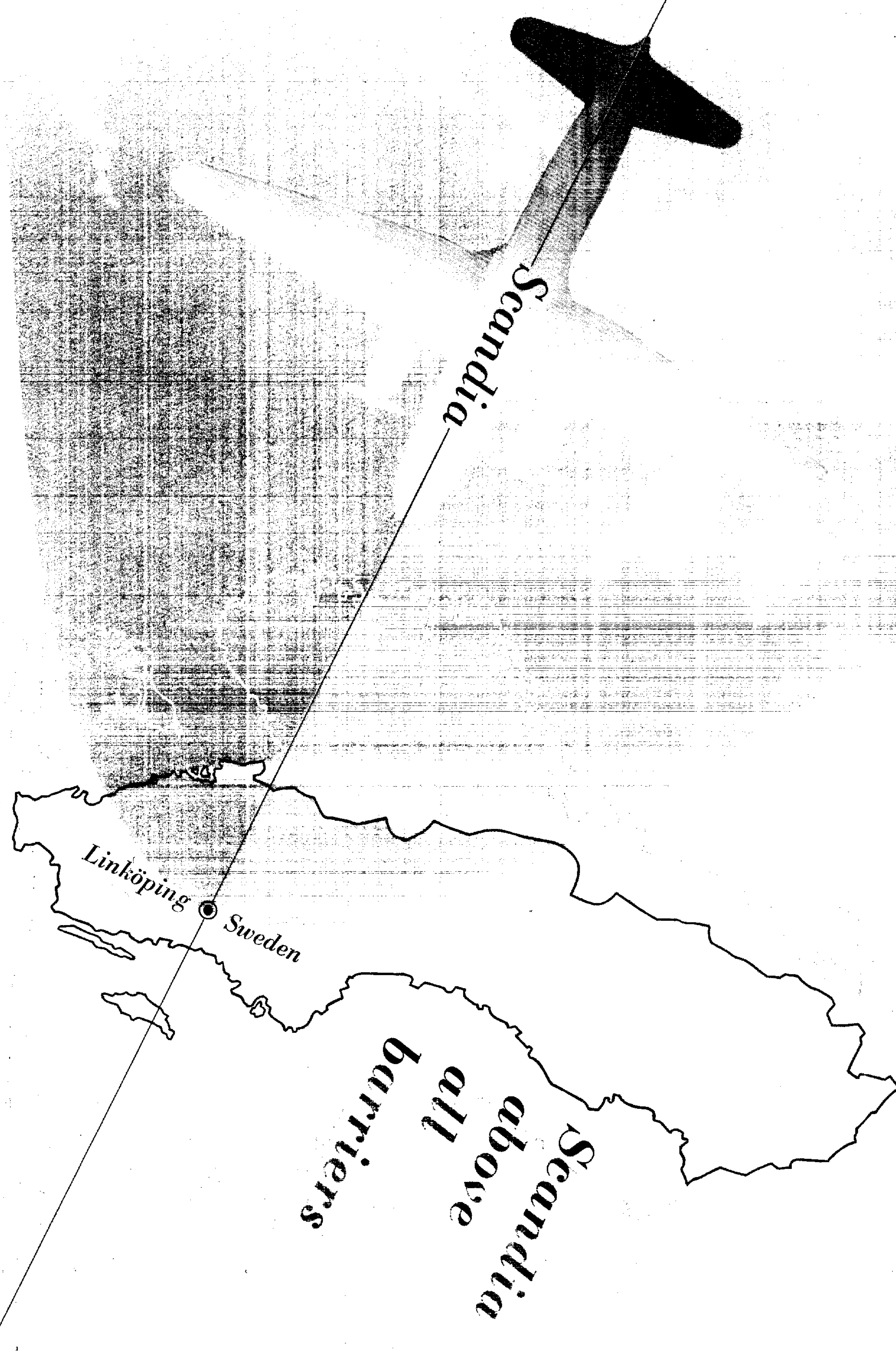


Saab
SCANDIA 90A-2



Approved For Release 2003/12/01 : CIA-RDP80-00926A001500010002-4

Saab

SCANDIA 90 A-2

The Scandia was developed after a careful investigation as to what type of aircraft the airlines would demand. This investigation was amplified by thorough consultations with airline executives, technical officers, and pilots.

Different categories of flying routes call for the employment of different types of aircraft. This raises the question: which types are, or will eventually become, most suitable for dealing with different forms of traffic and varying conditions of flight?

The choice of type

At the time SAAB began to plan the design of its new commercial plane in the year 1944 the following points were taken into consideration in judging future developments: Over long air routes — 2000 miles or more — with a regular passenger frequency and a demand for high speeds and special arrangements (pressurized cabins, sleeping accommodation, etc.) large four-engined planes would be found most suitable. Over shorter distances, on the other hand, with an irregular passenger frequency and the necessity for using small flying fields in many cases, medium-sized twin-engined types would yield the best results and allow more economical operation.

This point of view was adopted as a basis for the planning of the Saab Scandia. The latter is a twin-engined passenger plane capable of carrying 24—32 passengers and a considerable amount of freight, and it has a maximum flying range of 1060 miles (1700 km) with a fuel reserve in accordance with the A. T. A. regulations.

Developments since the war have proved that the choice was a wise one, and this type now fulfils an extremely important task in the branch of commercial aviation. Over a very large number of the word's air routes it is necessary at the present day, and in all probability will be for many years to come, to operate with a view to a widely fluctuating number of passengers carried and flying conditions which in many cases vary appreciably. Thus, small flying fields difficult of approach not only call for good performance and a high maximum altitude but also for excellent handling qualities at low speeds.

Demands to be met

As mentioned above, the demands of airline operators do not confine themselves to the size and the range of the aircraft. The most desirable features, besides maximum flying safety under *all* conditions, are low operating, maintenance, and overhaul costs, adaptability to small airfields, and the greatest possible comfort to passengers and crew.

The Civil Air Regulations (CAR), Transport Category Requirements (dated Nov. 9th, 1945 with all amendments valid April 1st, 1947) of the United States Civil Aeronautics Administration (CAA), have been applied throughout. Performance figures given in this account have been estimated and determined in accordance with the CAR. But the Scandia also fulfills the requirements of ICAO, both regarding the performance and the strength.

The Result

Consultation with airline operators did not cease when the outline of the Scandia had been determined. It was carried on continuously during the entire designing period, and the Saab Aircraft Company owe its advisers a lasting debt of gra-

The flight tests of the Scandia, started Nov. 16th, 1946, have given proof of its superior flying qualities which were demanded during design. After flying the Scandia, airline executives of leading air transport companies have pronounced their satisfaction with the type.

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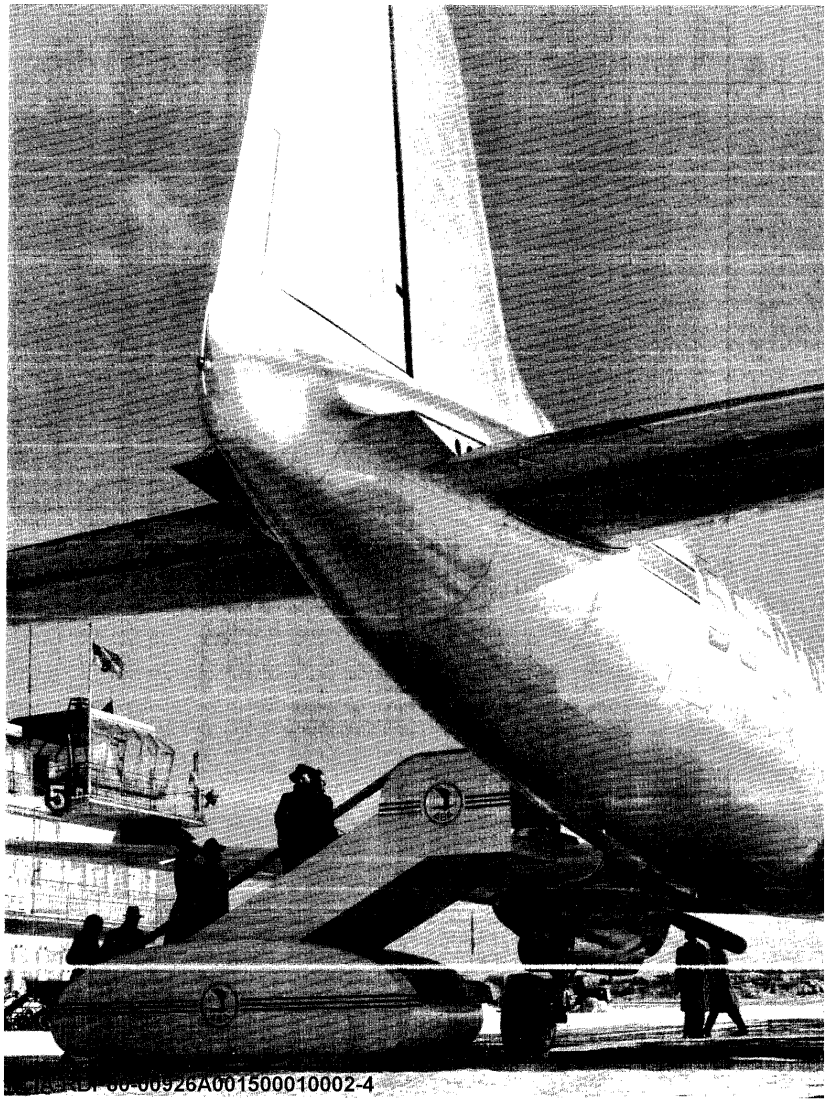


Performance

Level Flight Speed (Low Impeller Ratio), Weight 30 864 lbs (14 000 kg)

1 400 BHP (METO Power)	
Critical Altitude (7 800 ft)	283 MPH (455 km/h)
Sea Level Altitude	262 MPH (421 km/h)
940 BHP	
10 000 ft Altitude	250 MPH (402 km/h)
Sea Level Altitude	228 MPH (366 km/h)

Stalling Speed (Weight 30 200 lbs 13 700 kg)

flaps down	75 MPH (120 km/h)
flaps up	92 MPH (148 km/h)

Service Ceiling (Rate of Climb 100 ft/min), METO Power Weight 32 408 lbs (14 700 kg)

High Impeller Ratio	
Both Engines Running	28 550 ft (8 700 m)
One Engine Inoperative	10 500 ft (3 200 m)

$(R/c = 0.02 \cdot V_{so}^2$ ft/min)

Low Impeller Ratio	
Both Engines Running	24 600 ft (7 500 m)
One Engine Inoperative	9 520 ft (2 900 m)

Rate of Climb, METO Power, Weight 32 408 lbs (14 700 kg)

Sea Level Altitude, Low Impeller Ratio	
Both Engines Running	1 475 ft/min (450 m/min)
One Engine Inoperative	338 ft/min (103 m/min)
5 000 ft Altitude, Low Impeller Ratio	
Both Engines Running	1 426 ft/min (434 m/min)
One Engine Inoperative	315 ft/min (96 m/min)

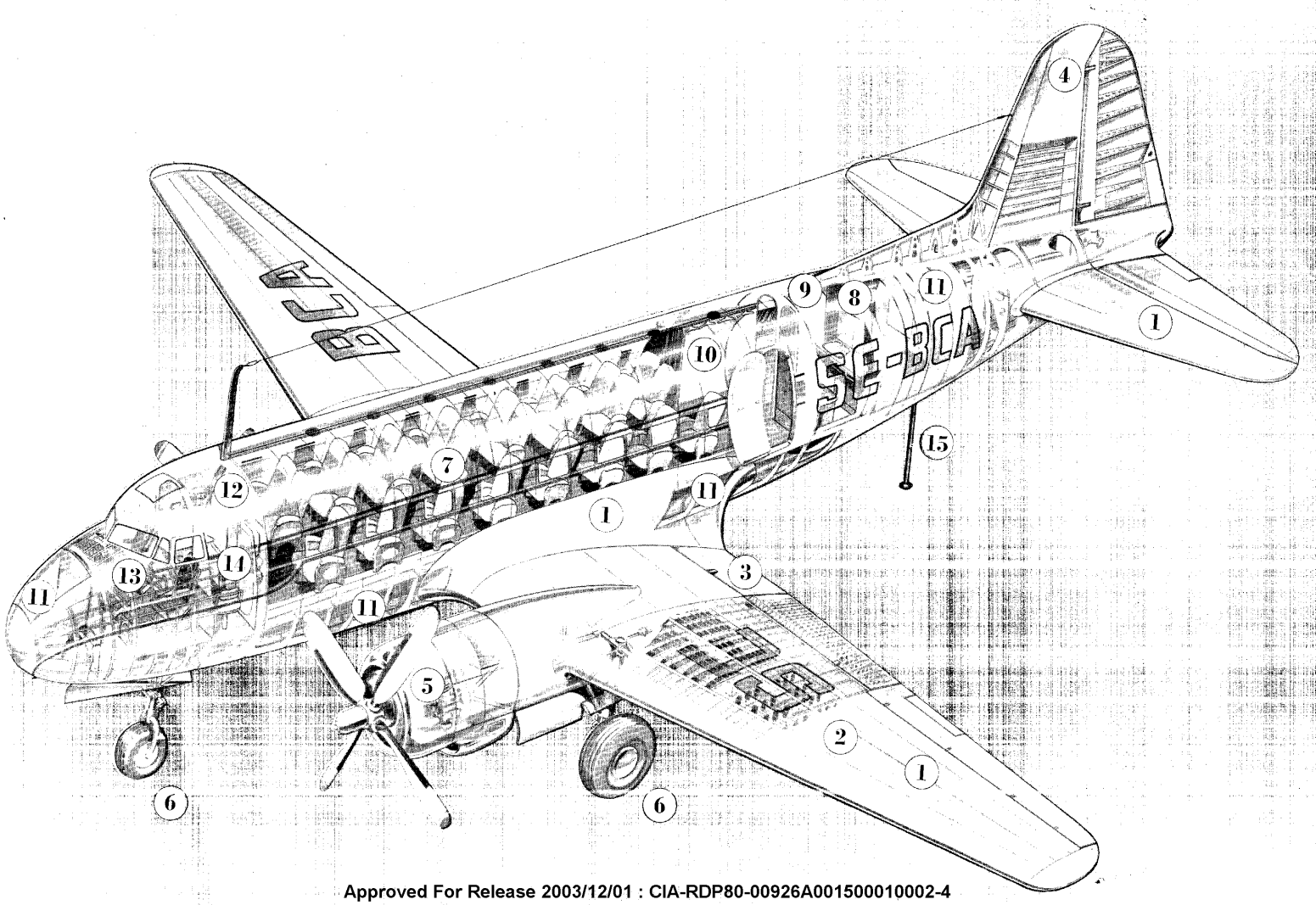
Engines (Pratt & Whitney Twin Wasp E-12, R-2180)

Take-off Power (2 800 RPM, 3 000 ft)	1 650 BHP (1 675 CV)
With water injection	1 800 BHP (1 825 CV)
Maximum Except Take-off (METO) Power (2 600 RPM)	
Low Impeller Ratio (6 000 ft)	1 400 BHP (1 420 CV)
High Impeller Ratio (15 500 ft)	1 250 BHP (1 267 CV)

Dimensions and Cargo Capacity

Wing Span	91 ft 10 in (28.0 m)
Length	69 ft 11 in (21.3 m)
Height	24 ft 3 in (7.4 m)
Total Wing Area	922 sq ft (85.7 m²)
Wing loading	172 kg/m² (35 lbs/sq ft)
Aspect Ratio	9.15
Cabin Door Sill, Distance from Ground	8 ft 2 in (2.5 m)

Nose Cargo Compartment	11 cu ft (0.3 m³)
Rear Cargo Compartment	225 cu ft (6.4 m³)
Forward Belly Cargo Compartment	80 cu ft (2.3 m³)
Rear Belly Cargo Compartment	70 cu ft (2.0 m³)
Total Cargo Capacity	386 cu ft (11.0 m³)



Outstanding features of the Saab SCANDIA

1. The flying qualities of the Scandia are extraordinary for both two- and one-engine operation.

2. The Scandia is safe at take-off and landing due to the moderate wing loading — 172 kg/m² (35 lbs/sq ft).

3. The Scandia can safely be landed on short runways because the flaps extend along the greater part of the trailing edge of the wing — also under the fuselage. Furthermore the ailerons serve as flaps, making the flaps highly efficient.

4. The design of the tail unit has contributed to the extraordinary stability of the aircraft.

5. The engines — of Pratt & Whitney's first class make — are very reliable and economical.

6. The tricycle landing gear with steerable nose wheel gives safety and comfort during take-off and landing.

7. The passenger compartment accomodates 24 or 32 passengers and can be changed from one version to the other in a very short time. The Scandia can also be used for cargo transport. This versatility increases the operator's profit.

8. The lavatory is very spacious and has an attractive appearance.

9. The pantry is in a separate room designed in accordance with modern demands.

10. The Scandia is equipped with a wardrobe.

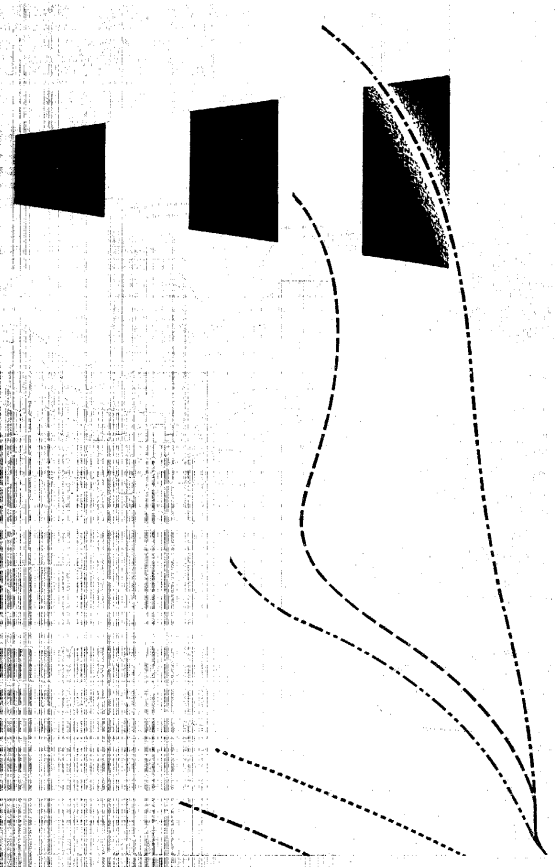
11. The cargo compartments are roomy and easily accessible.

12. The crew compartment has ample room for two pilots, radio operator, and flight engineer giving the crew comfort and extremely good working conditions.

13. Instruments and controls are excellently arranged keeping the strain on the crew to a minimum.

14. Vital electrical and hydraulical apparatus are placed in enclosed shelves in the crew compartment where they are easily accessible during flight.

15. The ground service of the aircraft is facilitated by a tail support, which is controlled electrically by a push button from the pilot's seat.



Saab SCANDIA **Safety**

The moderate wing loading and a stability and manœuvrability unsurpassed at low speeds, in addition to a good rate of climb and good flying qualities even with only one engine operating, are the criteria of Scandia's

safety in take-off and landing.

The location of fuel tanks and shut-off devices for fuel and oil, and the rapid jettisoning of fuel when necessary, besides the most modern fire-extinguishing system with warning-signals and fireproof inner covering implies a

maximum of safety against fire.

An airfoil section less sensitive to ice formation; heating of the leading edges of wings and empennage; electrical de-icing of the double windshield; hot-air de-icing of the carburators; clear-view screen and electrical de-icing of the airscrews make the aircraft

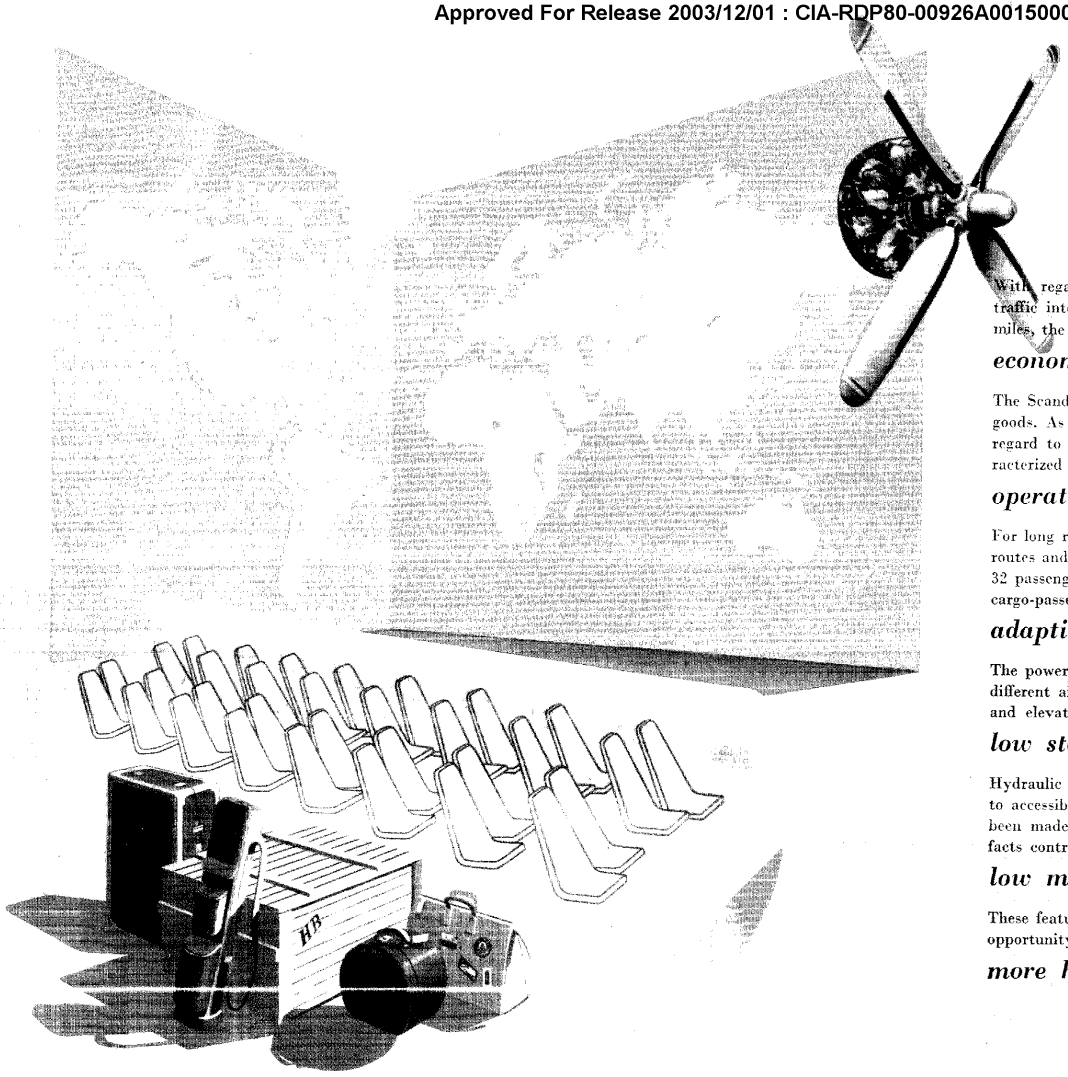
independent of icing weather.

The sturdy construction of every detail as to strength and function — confirmed by tests in the laboratory and in the air — and most dependable instruments also ensure a

continuous safety of flight.

All crew members are gathered in one comfortable compartment with excellent location of instruments and control handles, a specially blister-shaped pane in the side windows in conjunction with easily accessible electric, radio, and hydraulic centrals, form valuable

indirect safety factors.



Saab
SCANDIA **Economy**

With regard to its price, moderate running expenses, adaptability to traffic intensity and varying demands for operating ranges up to 1,000 miles, the Scandia constitutes an extremely

economic size.

The Scandia has spacious cargo compartments for additional luggage and goods. As indicated by the diagrams in this brochure, the aircraft with regard to speed, high pay-load capacity, and low running costs, is characterized by an exceptionally sound

operating economy.

For long routes the aircraft accommodates 24 passengers, but for shorter routes and higher passenger frequency it can be quickly changed to carry 32 passengers; furthermore it can be converted into a cargo or combined cargo-passenger aircraft. This means an economically valuable

adaption to varying tasks.

The power plant, interchangeable from one side to the other or between different aircraft, easy interchange of landing gear main units, stabilizer and elevator halves, etc assure

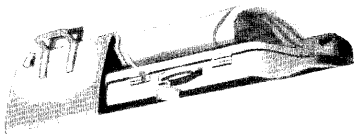
low storing expenses for spare parts.

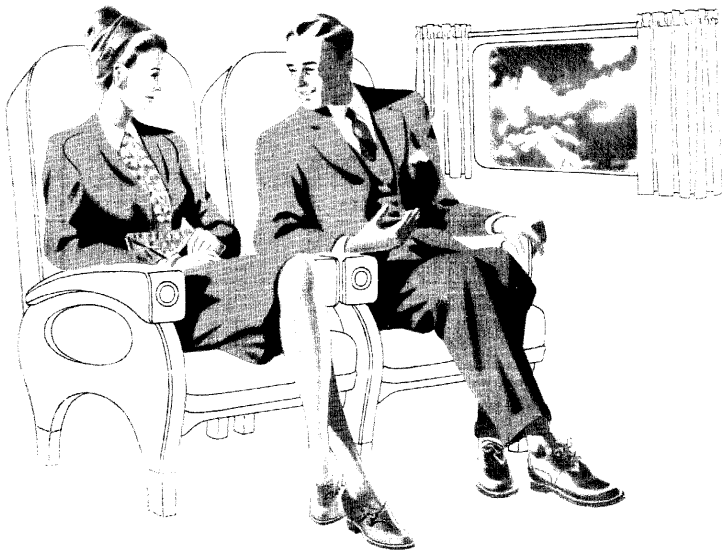
Hydraulic and electric components are located with special consideration to accessibility. Control cables are within easy reach, and ample use has been made of ball bearings and electric cables grouped in ducts. These facts contribute to

low maintenance and overhaul costs.

These features give every air transport company chosing the Scandia the opportunity of keeping the aircraft

more hours in the air.





Saab SCANDIA **Comfort**

The symmetrical location of passenger-space in relation to the centre of gravity of the aircraft, and the good stability of the aircraft gives the passengers

a feeling of pleasant flying.

Good sound insulation of the cabin and the absence of vibration disturbances, result in a

low noise level.

The tricycle landing gear, keeping the cabin floor in a horizontal position while on the ground, the ample cabin height, the roomy space between the chairs and the large windows, give

freedom of movement and good visibility.

Comfortable, adjustable arm-chairs with separate reading lamps at each seat, individual steward-call signals, a well equipped pantry, an elegant and spacious lavatory with hot and cold water, are details that further the greatest

comfort for long trips.

The air conditioning system with a combustion heater, ram-operated in the air and operated by fans on the ground gives, together with the individual air intakes at each seat,

good ventilation and well balanced temperature both in the air and on the ground.

The shape of the pilots' seats and easily accessible controls, ensuring the pilots a restful position, a specially tested lighting equipment in the crew compartment, the practical placing of the radio operator and the well-designed pantry mean

maximum comfort for the crew.

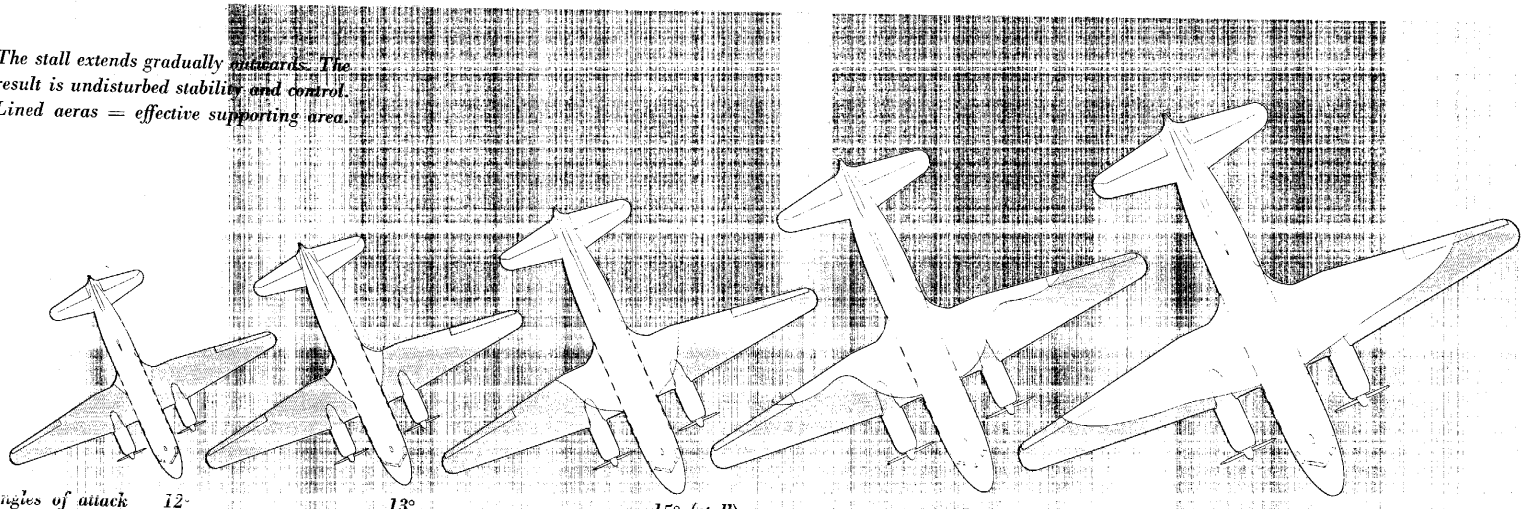
THE SAFETY

Safety is, first and foremost, a matter of aerodynamic design. Wing or control surface flutter should not appear at any point within the speed limits. This self-evident demand fulfilled, *'low speed stability and manœuvrability'* could be substituted for 'aerodynamic safety'. A paramount part of the safety problem is therefore embodied in answers to the following questions: What happens when the speed is being reduced to the stalling point? Where will the stall appear first? At the wing tips (tip stall), causing instability, loss of aileron effect and tendency towards spin? Or will the stall commence at the central part of the wing, giving the pilot ample warning, and extend gradually towards the wing tips, while the aircraft retains undisturbed stability and unimpaired lateral control?

The diagram on this page, representing the progress of the stall, gives the answer as far as the Scandia is concerned. The Scandia — power-on as well as power-off — has a straight stall and will gain speed after the stall by nosing down gently. There is no tendency whatsoever to roll or spin during stall and the aileron action is normal far beyond maximum lift coefficient.

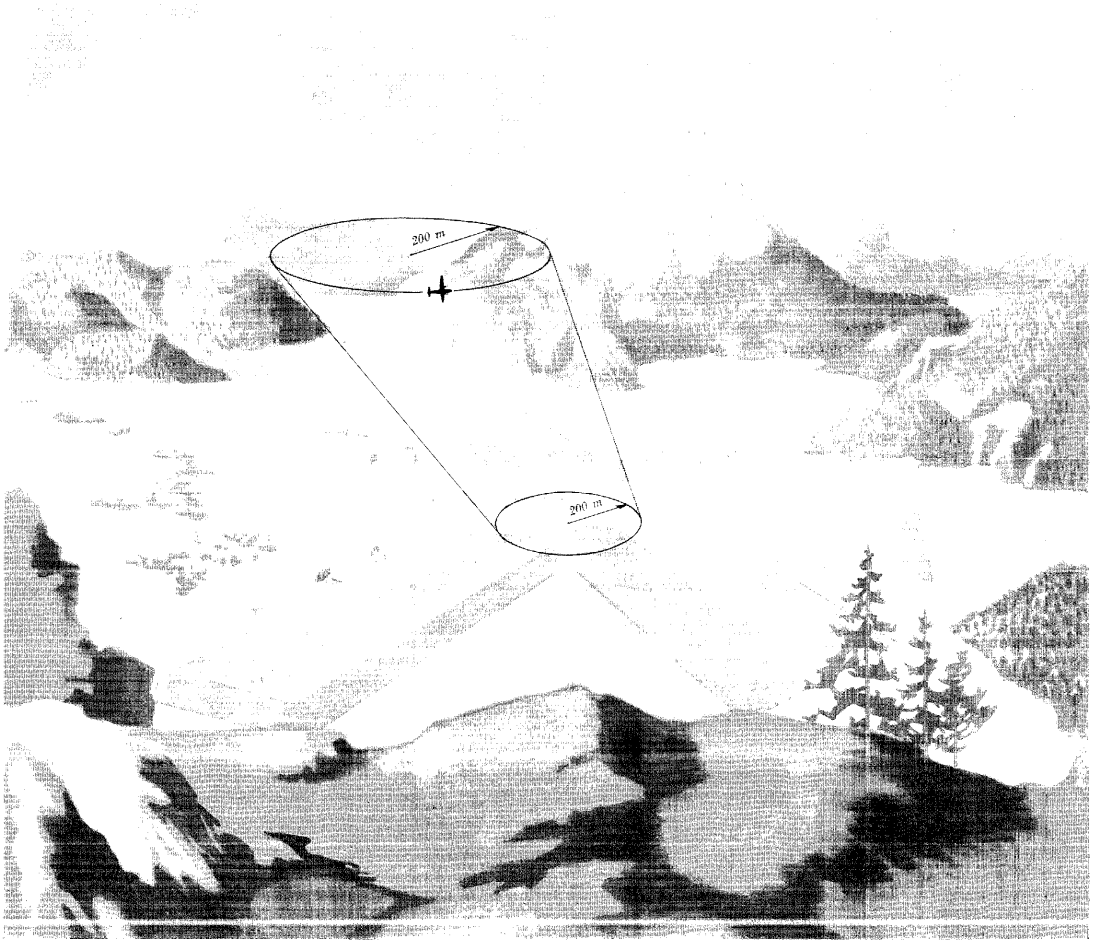
Please turn to page 14

The stall extends gradually outwards. The result is undisturbed stability and control. Lined aeras = effective supporting area.



Angles of attack 12° 13° 15° *(stall)* 17° 19°

Level Flight True Airspeed *103 MPH, 165 km/h* *99 MPH, 159 km/h* *96 MPH, 154 km/h*

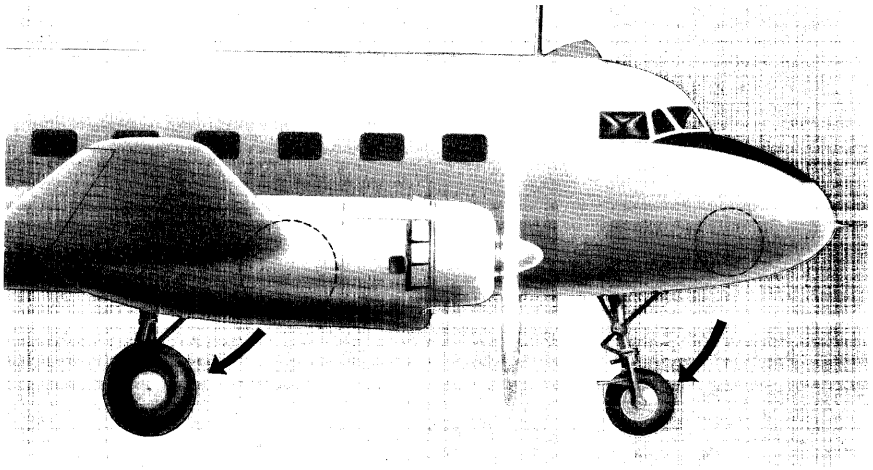


The excellent low-speed manœuvrability of the Scandia makes it possible to operate the aeroplane with absolute safety even from small landing fields.

Every transport aircraft may be expected to meet with situations, when low-speed manœuvrability, even during continuous flight, will be a very important feature. The minimum gliding speed of the Scandia is about 78 MPH (125 km h). At this speed the Scandia is fully manœuverable. Consequently the Scandia is able, in accordance with the CAR, to make a 180° turn with a 650 ft (200 m) radius in 15 seconds.

The low-speed manœuvrability indicated by this figure is invaluable, for instance when approaching small and obstructed airports.

The safety of a transport aircraft is not determined by aerodynamic characteristics alone. The Saab Aircraft Company was one of the first aircraft manufacturers in Europe to adopt the *tricycle landing gear*, which first appeared on the Saab-21 fighter. This type of landing gear has by now given convincing proof of its superiority with regard to safety and manœuvrability during all phases of take-off, landing, and taxying. All wheels of the landing gear move forward when being retracted. Lowering the landing gear can therefore be accomplished very rapidly at an emergency, and without the assistance of the normal hydraulic system. The nosewheel is steerable.



All control surfaces are operated by hand and there is no need for boosters to increase the control forces. The locking of control surfaces is governed by a central control in the pilot's cabin, and therefore there is no need for external locks.

Moderate wing loading in combination with outstanding aerodynamical design gives the Scandia extraordinarily good take-off and landing qualities making it possible to operate the aircraft with full safety on small and obstructed airports.

Two sets of *flight instruments* are installed, arranged in separately functioning systems quite independent from each other so that the readings can be compared during flight and any deviation rapidly be discovered.

The electric system is arranged in two sections independent of each other. Under normal conditions they are coupled together via automatic releasing devices. The electric devices are connected to these sections in such a manner that they can replace each other in an emergency. This insures against breakdown of the entire electric system.

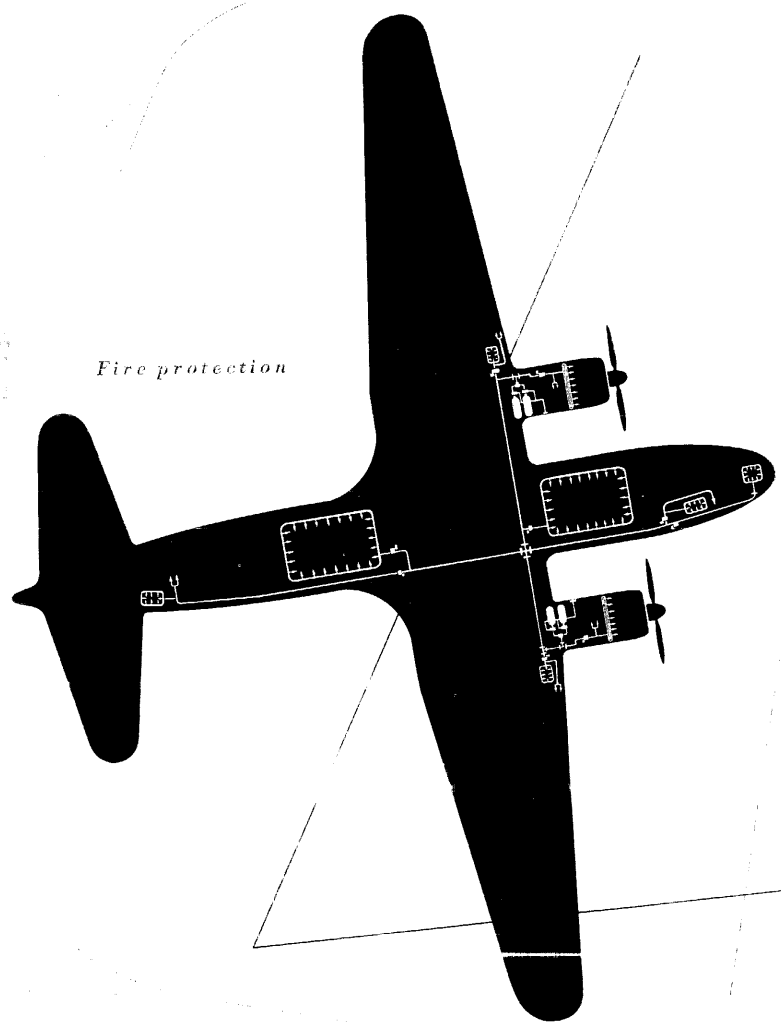
The windshields have been designed to sustain the impact of *colliding birds* in accordance with CAR and are constructed so as to cause the least possible reflections from sources of light in or outside the aeroplane and to give the least possible parallactic errors from the pilot's seat. The front panes are equipped with windshield wipers.

In order to prevent mistakes as to which button to use when feathering the blades of the airscrew, the buttons are placed in the immediate vicinity of the tachometer of each engine. Warning and indicator lamps facilitate the supervision of

Please turn to page 17

Airport length requirements

Take-off to 50 ft (15 m), both engines running, sea level, gross weight 32 408 lbs (14 700 kg), water injection	1 935 ft (590 m)
CAR runway length for take-off at sea level and a take-off weight of 32 408 lbs (14 700 kg)	3 690 ft (1 125 m)
Landing length (without reversible pitch) to stop at sea level and a landing weight of 31 967 lbs (14 500 kg)	1 770 ft (540 m)
CAR runway length (without reversible pitch) for landing at sea level and a landing weight of 31 967 lbs (14 500 kg)	2 950 ft (900 m)



Fire protection

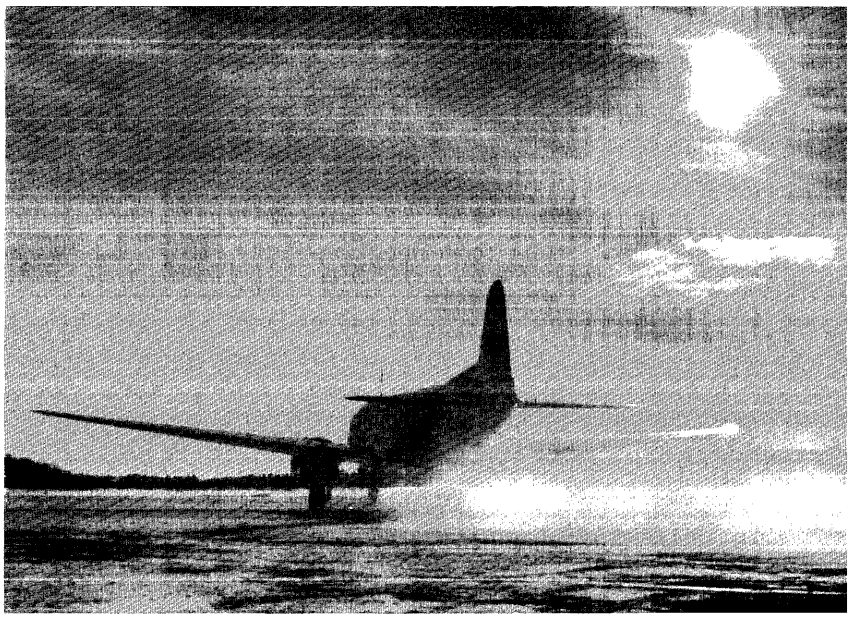
Ice prevention

various functions in the aircraft and are conveniently arranged. The landing gear signal consists of both a horn and a lamp signal.

Ice formation is prevented by hot air conducted along wing and empennage leading edges. Hot air is produced by three separate combustion heaters and the function of the engines will not be affected by the use of any heat exchangers built into the exhaust system. The airfoil used is remarkably insensitive to ice formation. The propellers and the double windshields are protected by electrical de-icing.

To prevent fire and to extinguish an arising fire, comprehensive measures have been taken. Thus the fuel tanks are situated in the outer wing panels and the whole fule system is designed according to the latest CAR regulations. If necessary, fuel can be jettisoned through outlets in the wing tips by the aid of electrically driven pumps. The whole fire protection system is also designed according to latest recommendations. Thus in the power plant there is a special fire-warning system installed, quickly effective, and based on thermo-electric principles. Furthermore, fire-warning systems are installed in the combustion heaters as well as in all cargo compartments. The fire extinguishing system covers the power units, as well as combustion heaters, and cargo compartments. It is controlled throughout by means of electrical switches, and in addition a switch of special design automatically actuates the fire [illegible]

As a whole the Scandia is easy to handle for both flying and ground personnel with a maximum of safety, as it is well designed and built with wellknown Swedish workmanship.



THE ECONOMY

When the Saab Aircraft Company set out to design the Scandia, they were well aware of the fact that airline operators would choose from the number of modern aircraft belonging to the desired category, the one offering the most favourable combination of *safety, operating and maintenance economy, speed* and *comfort*.

On pages 22—25 a series of diagrams are shown, representing payload, block speed and fuel & oil consumption against trip length, i. e. the fundamental characteristics of operating economy.

From the operating diagrams it is evident that the Scandia will be operated with profitable economy, but they do not tell the whole story. The cooperation with airline technical officers during the development of the Scandia, as well as the expe-

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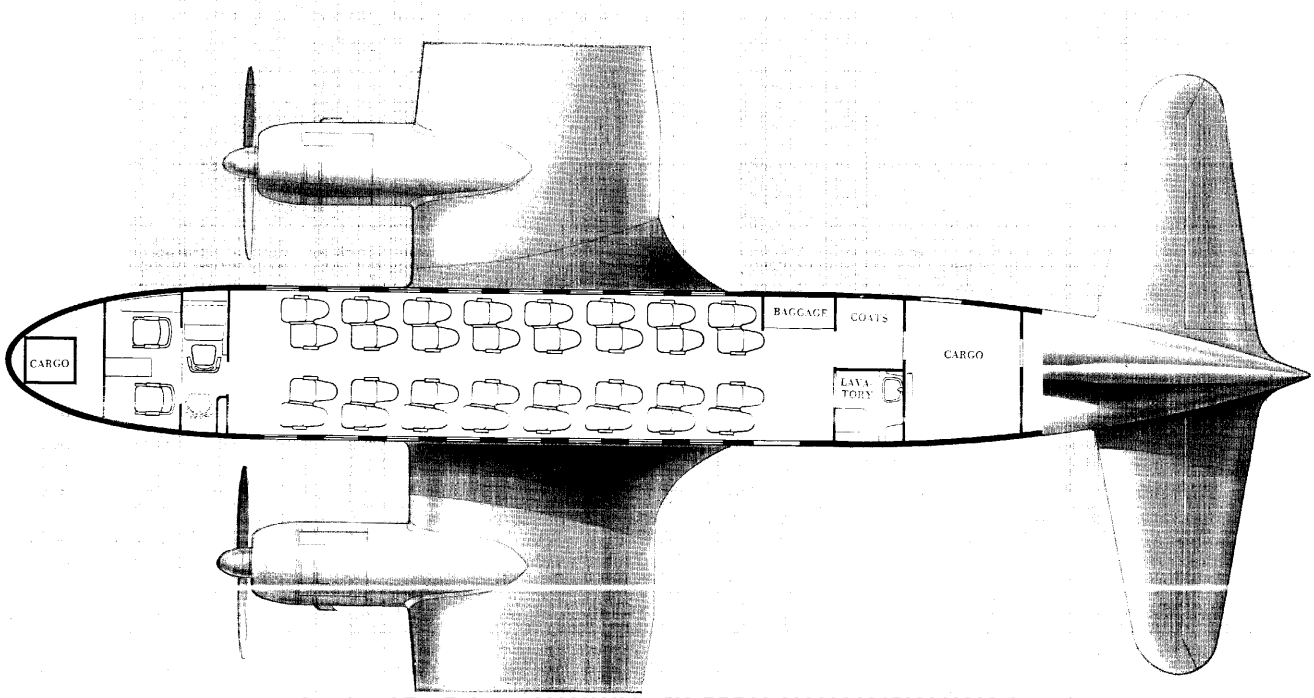
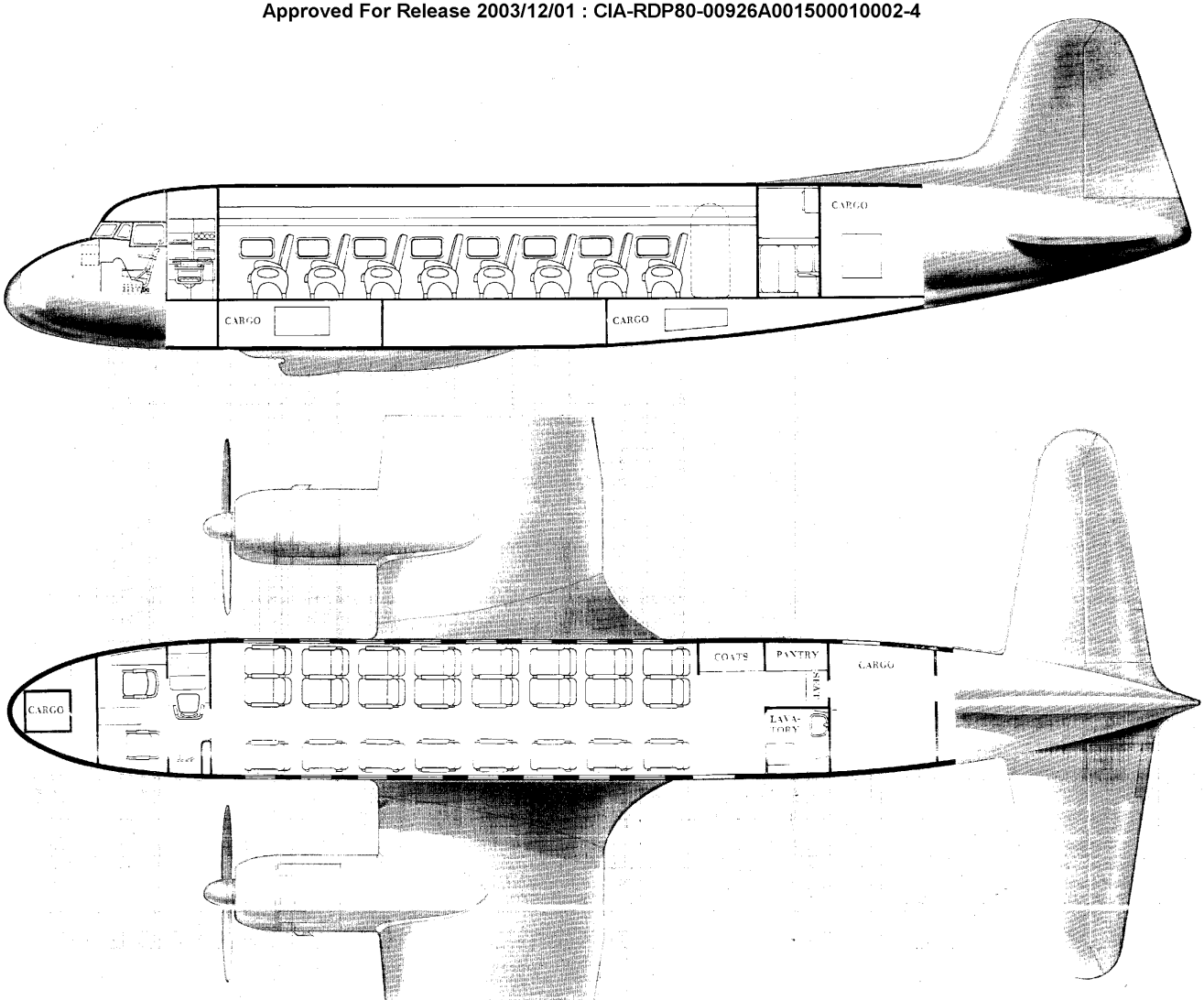
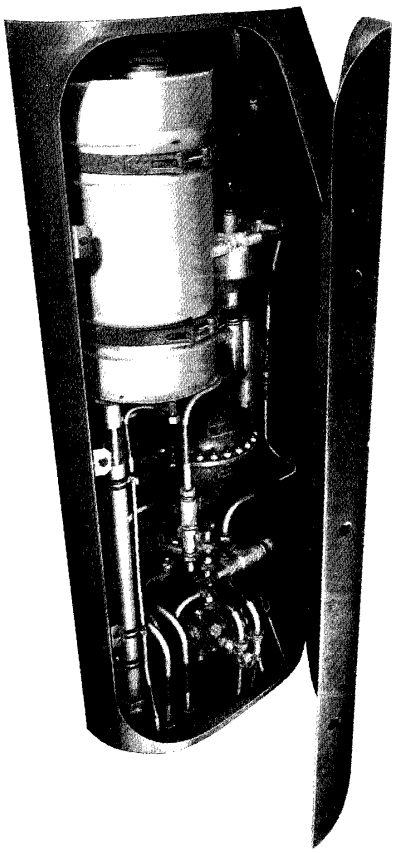




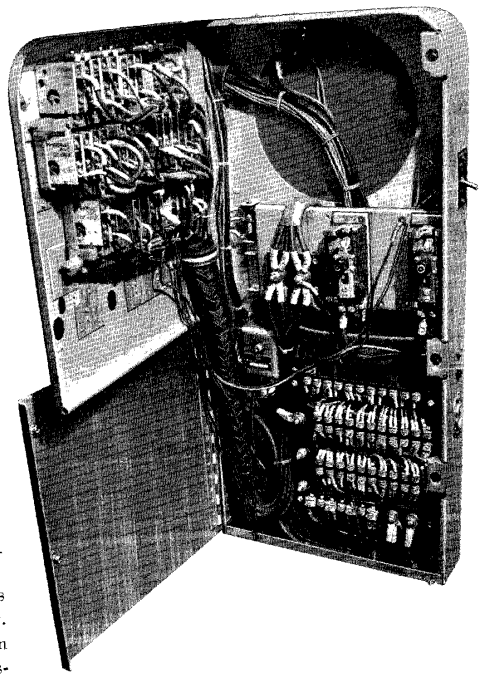


rience gained by the Saab Aircraft Company in their design and construction work, guarantees that the maintenance economy has been duly taken into account during the construction of the aircraft.

The power plant assemblies, including the entire oil systems, are interchangeable from one side to the other as well as between different aircraft. The engine mounts and the couplings of control rods, and electric cables, have been designed with special fittings for rapid and easy power plant replacement. Further, similarly interchangeable, major parts are the landing gear main units, and the stabilizer and elevator halves. In addition, with only slight machining, a great number of units are constructed so as to be interchangeable in any Standard Scandia.

Liberal use has been made of ball bearings, for control surface hinges, control mechanism bearings, cable pulleys, etc. Manual lubrication is therefore required only to a very small extent.

Hydraulic, electric and other equipment, and instrument units have been located with special consideration to accessibility. The hydraulic equipment has been concentrated in a closed-in panel on the front side of the partition wall between the passenger cabin and the crew compartment. Other components needing frequent inspection and maintenance are easily accessible from the landing gear wells in the fuselage nose and the engine nacelles, or through spring-lock shutters.



Composition of operating Weight Empty

	24 pass. version		32 pass. version	
	lbs	kg	lbs	kg
Manufacturer's weight empty	20 608	9 348	20 608	9 348
Crew, incl. personal equipment	543	246	387	176
Buffet equipment and food	165	75	29	13
Passenger service equipment	64	29	86	39
Residual fuel and oil	188	85	188	85
Operating weight empty	21 568	9 783	21 298	9 661
Disposable load (payload, fuel, and oil)	10 840	4 917	11 110	5 039
Gross weight	32 408	14 700	32 408	14 700

Notes concerning Figures and Charts on Pages 22—25

Take-off Gross Weight: 32 408 lbs (14 700 kg).

Cruising Altitude, Trip Length 200 miles (320 km) or more: 10 000 ft (3 050 m).

Cruising Altitude, Trip Length 50 miles (80 km): 1 000 ft (305 m).

Cruising Altitude, Trip Length between 50 and 200 miles according to a linear variation from 1 000 ft to 10 000 ft.

Wind: 10 MPH (16 km/h) headwind.

Fuel capacity 765 U. S. gals. (2 900 l)
Oil capacity 58 U. S. gals. (220 l)

Reserve Fuel and Oil, Trip Length 200 miles (320 km) or more: a quantity sufficient for a further 200 miles plus 45 minutes, at an airspeed 25 % above the speed for maximum range.

Reserve Fuel and Oil, Trip Length less than 200 miles: same as above, except the reserve distance (200 miles), which is reduced to the trip length.

Fuel and Oil Consumptions: computed with regard to the consumption during climb to cruising altitude, corrected for a 10 MPH (16 km/h) headwind, and based upon a specific consumption 5 % above the quantity stated by the engine manufacturer.

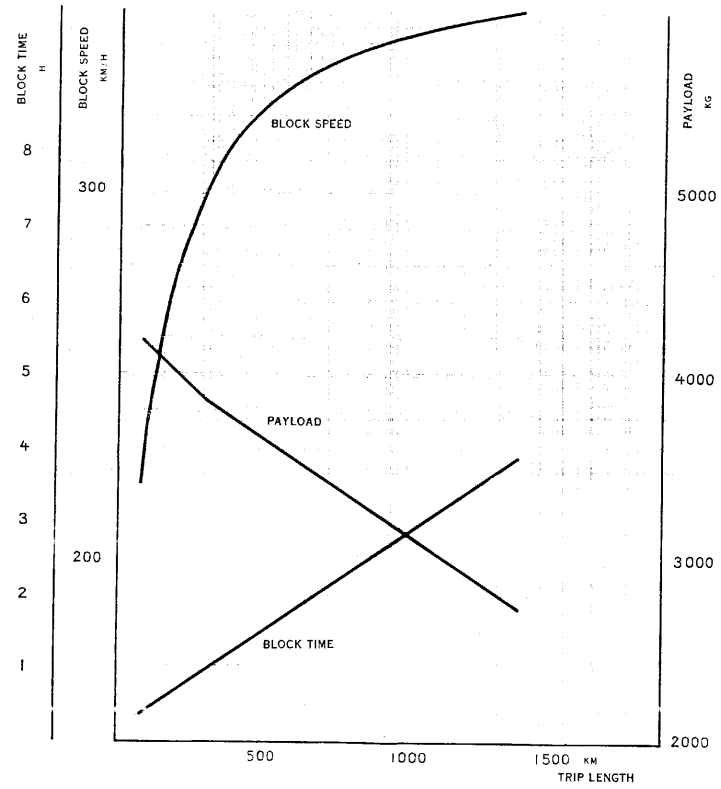
Block to Block Speed: computed with regard to the time required for climb to cruising altitude with an addition of 0.12 hour manœuvring time.

60 % SEA LEVEL RATED (METO) POWER

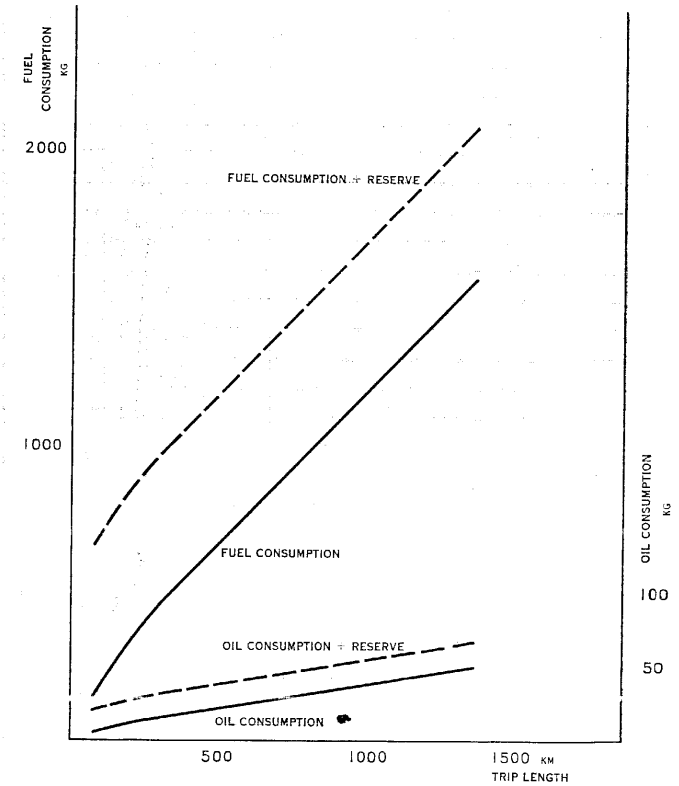
Measured in kilometer and kilogram

Take-off weight: 14,700 kg Headwind: 16 km h

PAYLOAD, BLOCK SPEED, and BLOCK TIME



FUEL and OIL CONSUMPTION

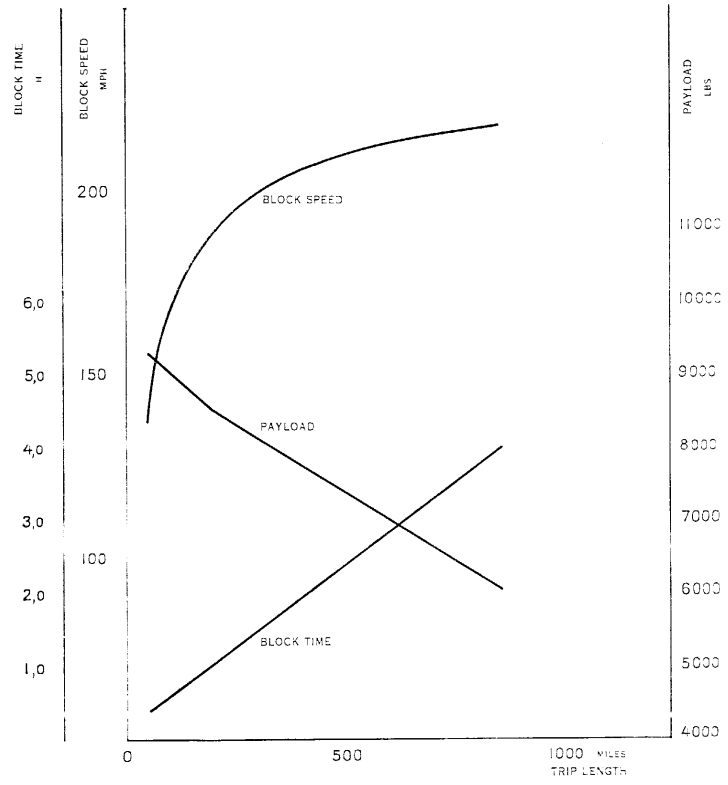


60% SEA LEVEL RATED (METO) POWER

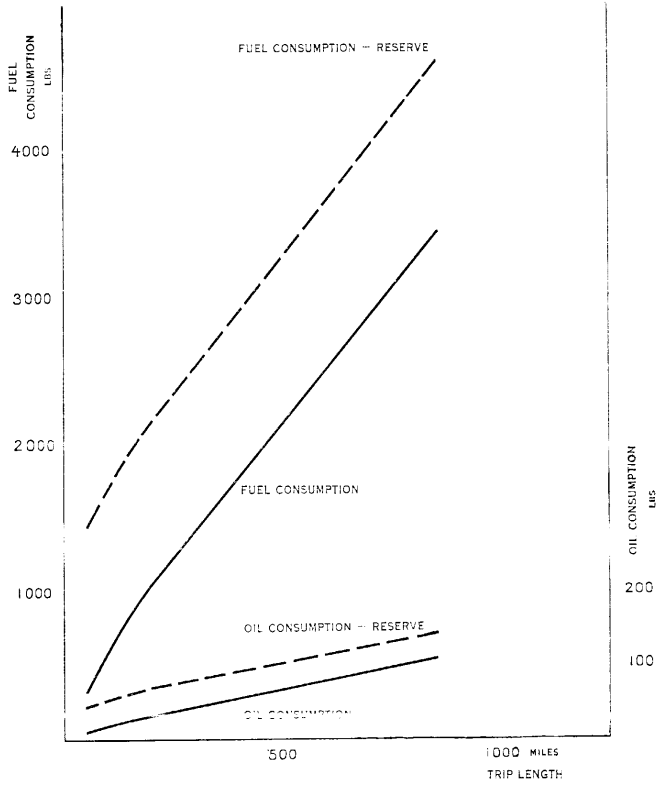
Measured in miles and pounds

Take-off weight: 32,408 lbs Headwind: 10 MPH

PAYLOAD, BLOCK SPEED, and BLOCK TIME



FUEL and OIL CONSUMPTION

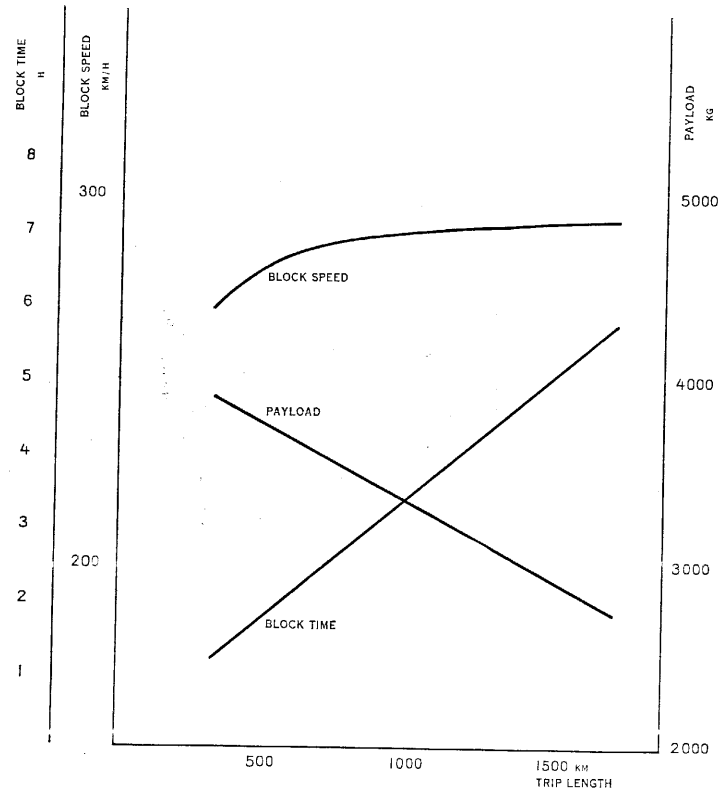


110 % MAXIMUM RANGE SPEED

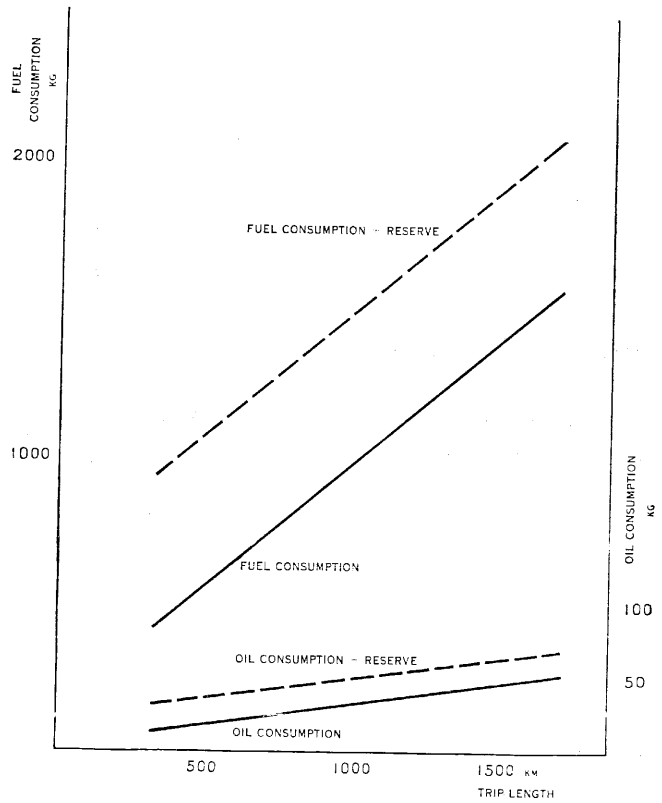
Measured in kilometer and kilogram

Take-off weight: 14.700 kg Headwind: 16 km h

PAYLOAD, BLOCK SPEED, and BLOCK TIME



FUEL and OIL CONSUMPTION

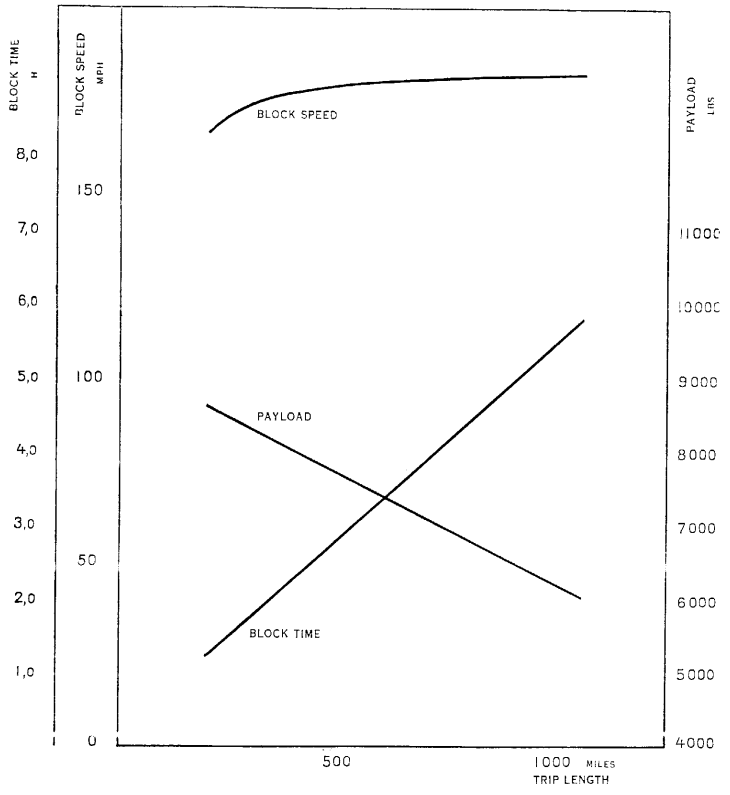


110% MAXIMUM RANGE SPEED

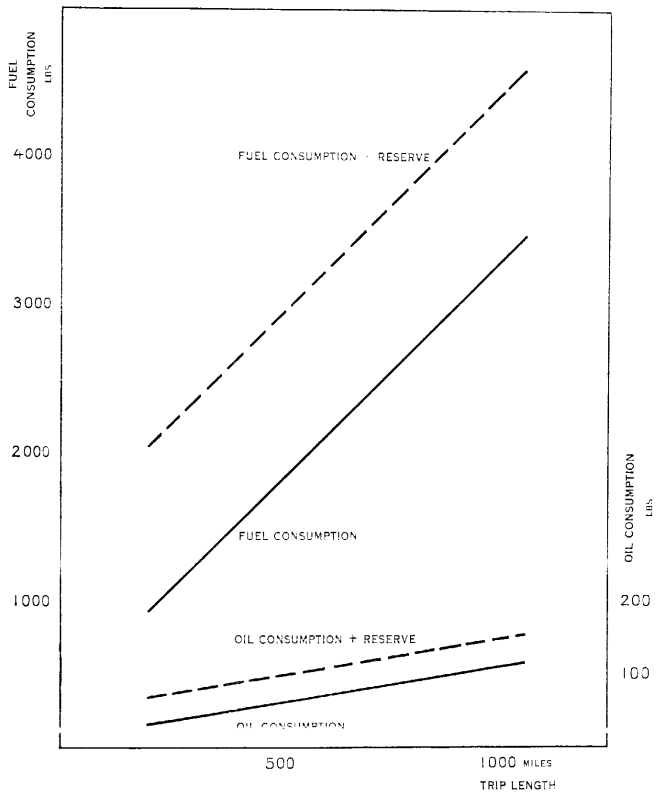
Measured in miles and pounds

Take-off weight: 32,408 lbs Headwind: 10 MPH

PAYLOAD, BLOCK SPEED, and BLOCK TIME



FUEL and OIL CONSUMPTION



THE COMFORT OF THE PASSENGERS

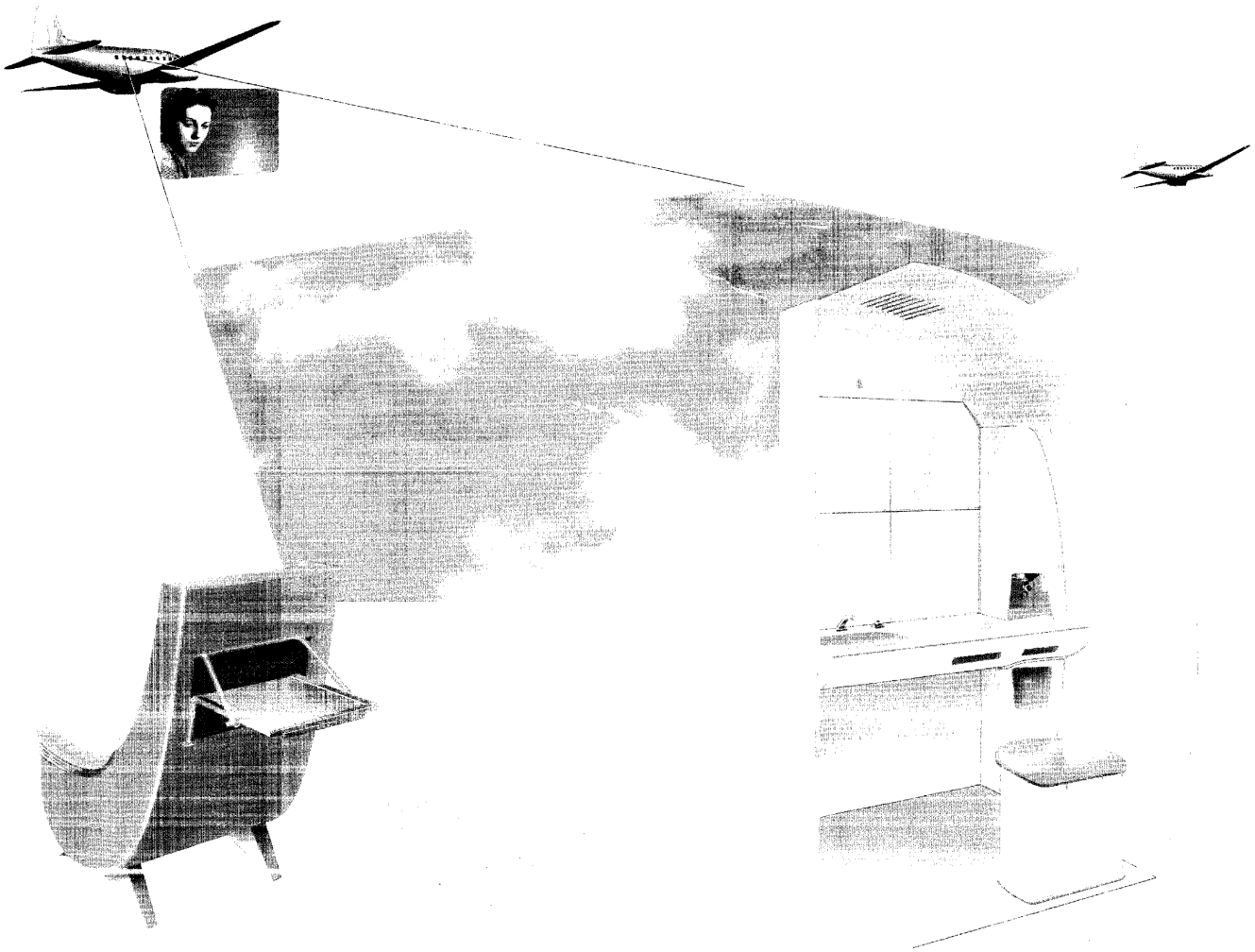
The creation of a high standard of travelling comfort, as regards seating, sound proofing, ventilation and heating, has been an uncompromising demand on the Saab Scandia. Extensive research has been made in order to secure the highest possible standard in these respects.

The passenger compartment has been located symmetrically fore and aft of the center of gravity. This arrangement will *reduce the effect of bumpy air* on the comfort of the passengers. When the Saab Scandia is on the ground *the cabin floor will be horizontal*, as in an ordinary room. Besides the well-known favourable influence of the tricycle landing gear on taxying, take-off and landing safety, it has thus a beneficial effect on the comfort of passengers during embarking, disembarking and while taxying.

The passengers' compartment is provided on both sides with eight large rectangular windows, one for every chair in the outer rows, *thus affording good visibility to the passengers*. The windows have double panes in frames of rubber, entirely free from draught.

The heating is effected by hot air from a separate heater and is free from draught and automatically regulated. Separate adjustable fresh air inlets are within easy access at every seat in the outer rows.

The comfortable chairs can be easily adjusted by readily accessible push buttons. There are reading lamps for every row of seats, and every seat is provided with an ashtray and a drinking-glass in a holder. A luminous sign on the [illegible] wall of the passengers' compartment indicates when smoking is prohibited and when the safety belts should be applied. In the same place there is also a clock. The lavatory of the aircraft is well furnished and provided with hot and cold running water.



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THE WORKING CONDITIONS OF THE CREW

The comfort of the crew has been given no less consideration than that of the passengers. Individual comfort and facilitation of co-operation during flight have been looked upon as important safety features. The crew compartment, including general arrangement, the design of the seats and the location of controls and instruments, have been thoroughly tested by experienced airline pilots and radio operators, who have found the arrangements exceptionally satisfactory.

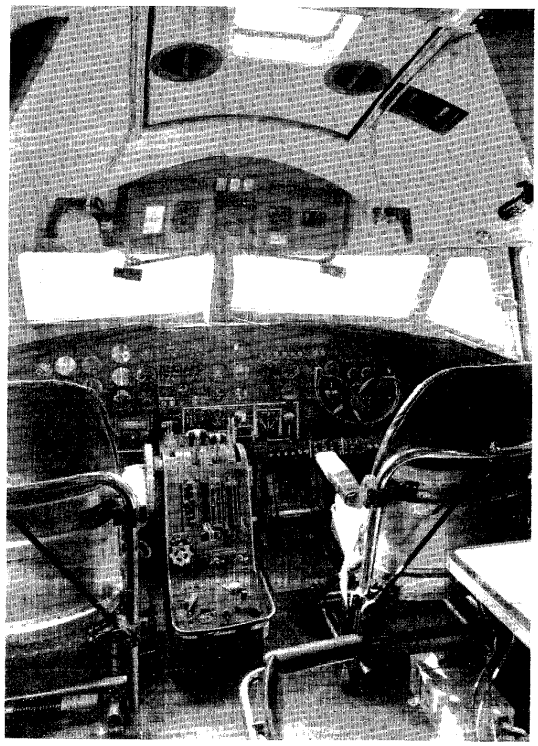
Thus *steering wheels and control pedals* are shaped and placed in such a way as to make the manœuvring of the aircraft extraordinarily comfortable. The seats have armrests and are adjustable vertically and longitudinally.

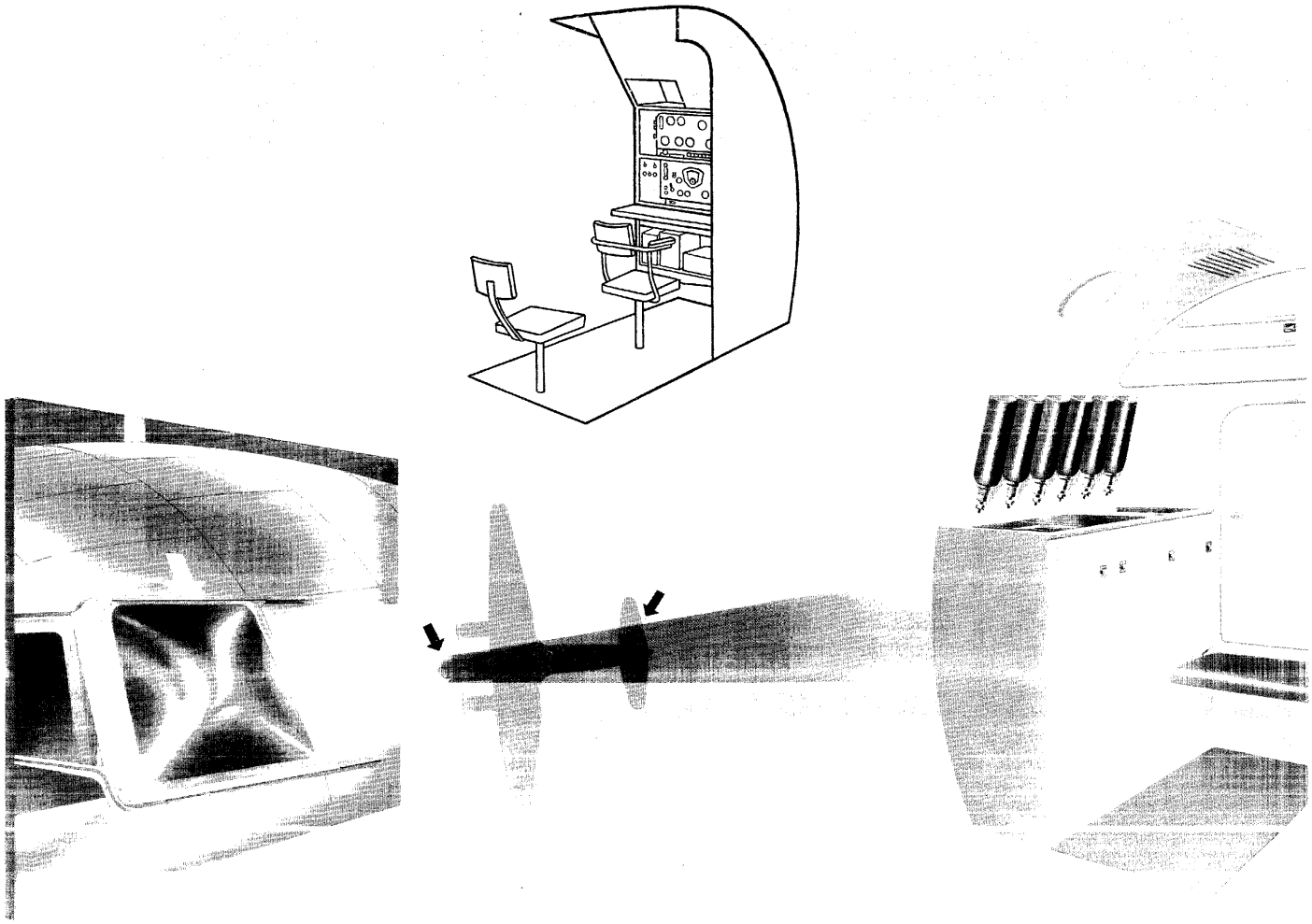
A blister-shaped side panel on both sides of the cockpit ensures good visibility backwards.

Clear-view panels in the wind-shield in front of the pilot's and copilot's seats afford better visibility in particularly bad weather conditions.

The instrument and control box illumination and the working light in the pilots' cabin are planned in such a way as to ensure excellent working conditions and to spare the eyes of the pilots.

The pantry is electrically heated and furnished with work-table, store cupboard, liquid containers, etc and has a seat for the steward. All details in its equipment have been planned in order to ensure good working conditions and better passenger service.





SVENSKA AEROPLAN AB

Svenska Aeroplan AB (The Saab Aircraft Company), of Linköping and Trollhättan, is the sole Swedish aircraft manufacturer and has a share capital of Sw. Kr. 21 milj. — fully paid up. It was founded in 1937, when war in the near future was already a likelihood. Three years later Sweden was completely isolated and exposed to an imminent menace of attack.

Under such circumstances the Saab Aircraft Company was compelled to devote its entire design and production capacity to the requirements of the Swedish Air Force. Having set out modestly with the production of military aircraft under license from, amongst others, the North-American Aviation Inc. and the Northrop Division of the Douglas Aircraft Company, Saab soon proceeded to develop designs of its own. The backbone of the Swedish Air Force was thus built up with Saab aircraft.

From the beginning Saab adopted the stressed skin construction. As far as circumstances permitted this method was developed in cooperation with the American aviation industry.

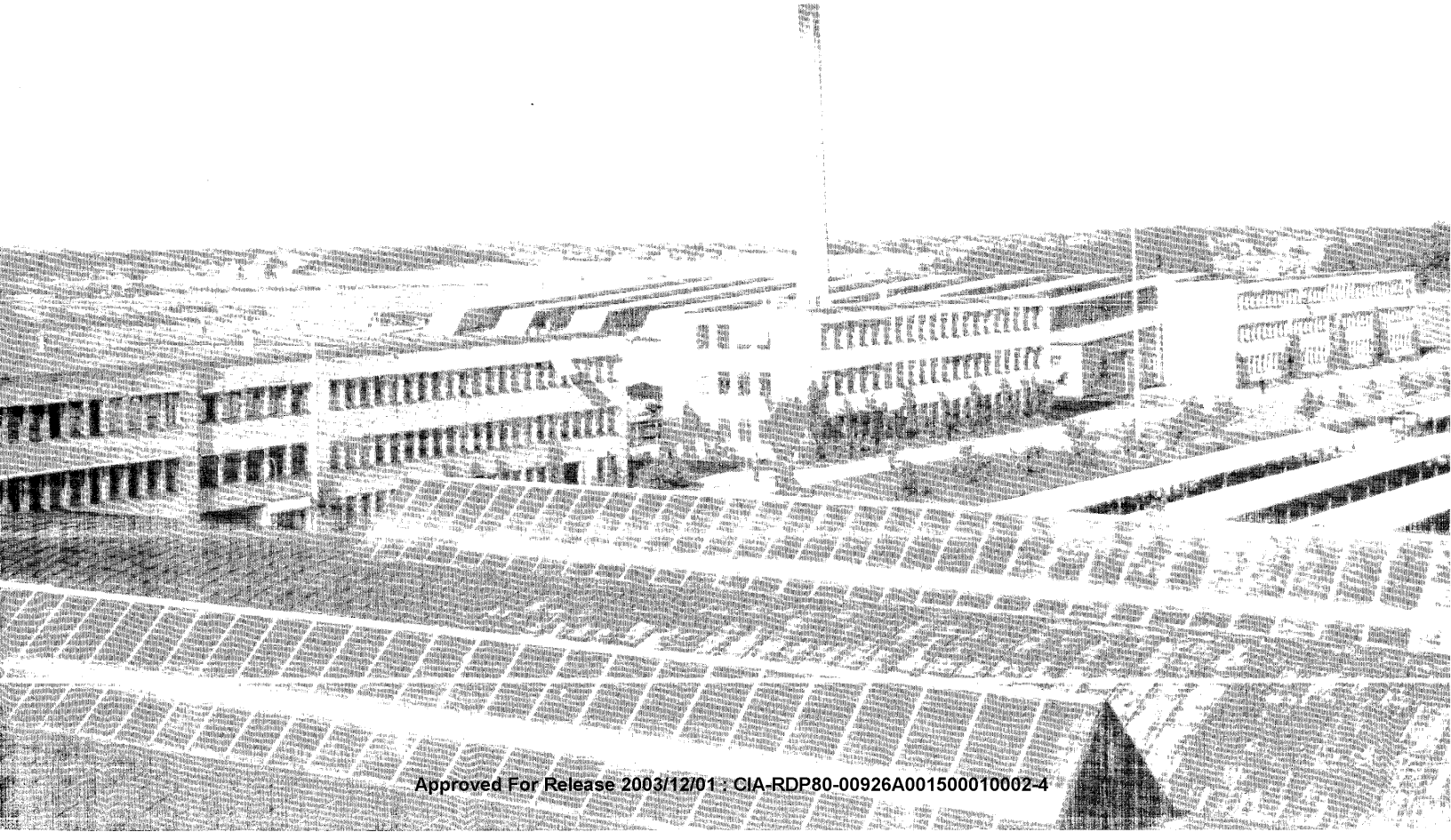
When the company started its own design activity, some fifty American designers were temporarily engaged to introduce stressed skin calculation and design methods which were not in general use in Europe at that time.

During the war Saab developed the Saab-17 single-engined and the Saab-18 twin-engined divebombers, and the Saab-21 single-engined 400 MPH pusher fighter. Another wartime task of Saab was the conversion of the Boeing B-17 "Flying Fortress" for civil transport duties.

The termination of hostilities in Europe provided Saab with an opportunity of extending its activities to the development of civil aircraft. Since the end of the war the Company has been manufacturing two civil projects, the Saab-90 Scandia Transport Aircraft and the Saab-91 Safir Light Three-seater.

At the same time the manufacturing of military aeroplanes including several types of jet aircraft for the Swedish Air Force has continued.

Saab's first jet fighter, the 500 MPH Saab-21 R, was test-flown in March 1947, and has now been put into production. A new and very advanced jet fighter, the Saab-29, made its first flight on September 1st 1948. The new aircraft has a swept-back wing and an estimated top speed of 650 MPH.



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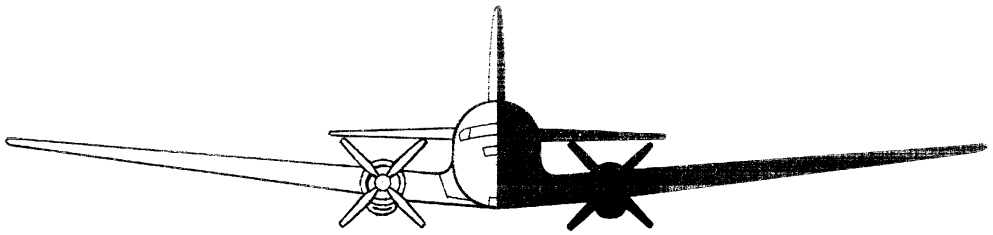
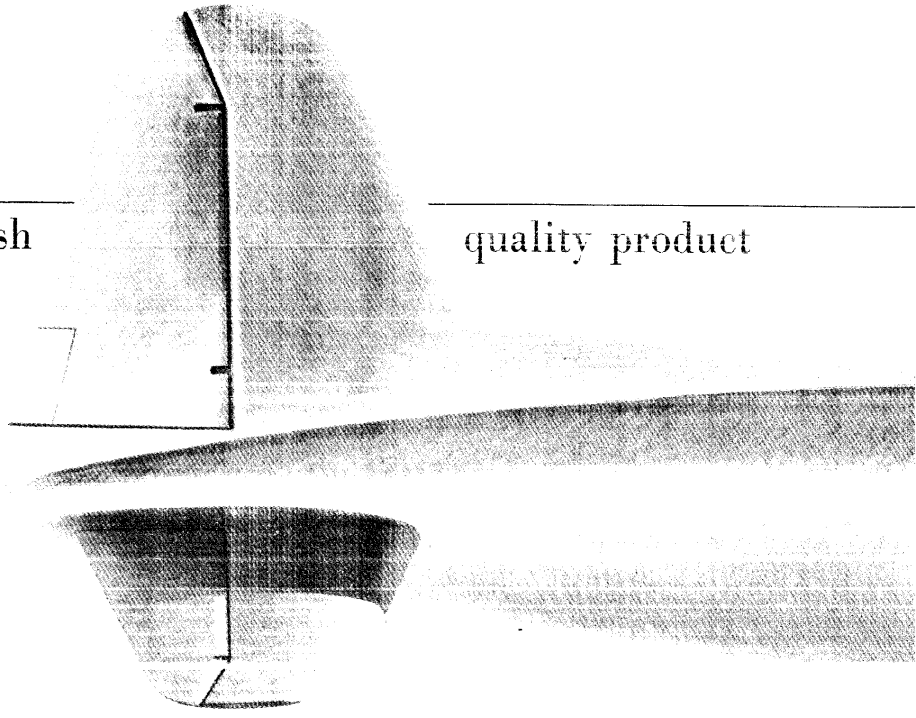


Saab

SCANDIA a swedish quality product



SVENSKA AEROPLAN AB

Saab Aircraft Company

LINKÖPING SWEDEN

TELEGRAMS: Saab LINKÖPING

SVENSKA AEROPLAN AB

Saab Aircraft Company